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NEW NORTH AND SOUTH AMERICAN DOLICHOPIDÆ, WITH NOTES ON PREVIOUSLY DESCRIBED SPECIES

By M. C. Van Duzee

In working over undetermined dolichopids which had accumulated in the American Museum I found the apparently new species described here. Some of them are very unusual, especially *Sympycnus* (*Calyxochætus*) *insolitus*, new species, which is not typical of the subgenus.

Among the interesting species determined that previously had been described, five are mentioned in this paper, the male of one being described for the first time.

Two mistakes appear in the names of *Chrysotus*, American Museum Novitates Number 483, published August 7, 1931. On page 16 in the table of species, couplets 2 and 4, "*Chrysotus caudatus*, new species," which is preoccupied, should read "*Chrysotus caudatulus*, new species." On page 16 in the explanation of figures, figure 21, "*Chrysotus caudatus*, new species," should read "*Chrysotus caudatulus*, new species," and figures 22, 23, and 24, "*Chrysotus tumidus*, new species," should read "*Chrysotus tuberculatus*, new species." On page 20, for "*Chrysotus caudatus*, new species," read "*Chrysotus caudatulus*, new species."

Unless otherwise stated the types of the new species are deposited in The American Museum of Natural History.

Condylostylus melampus Loew

There are before me five males and four females that I have determined as *melampus*. Three of the males and the four females were taken at Glenwood Springs and Riple, Colorado, the other two males at Highrolls, New Mexico. The only point not mentioned by Dr. Loew is the row of very small, more or less clavate hairs on the upper surface of the middle tibiæ. The males would run to *C. barbatulus* Becker, in M. l'Abbé O. Parent's key to the North and South American species of *Condylostylus* (Ann. Soc. Scient. Bruxelles, XLIX, p. 83, couplet 25). *C. melampus* differs from *C. barbatulus* in having the hypopygium (Fig. 1) moderately large, in my opinion, and the lamellæ are not at all triangular. Dr. Becker says "hypopygium small"; "outer lamellæ triangular at tip." The fore tibiæ in *barbatulus* have "three or four bristles

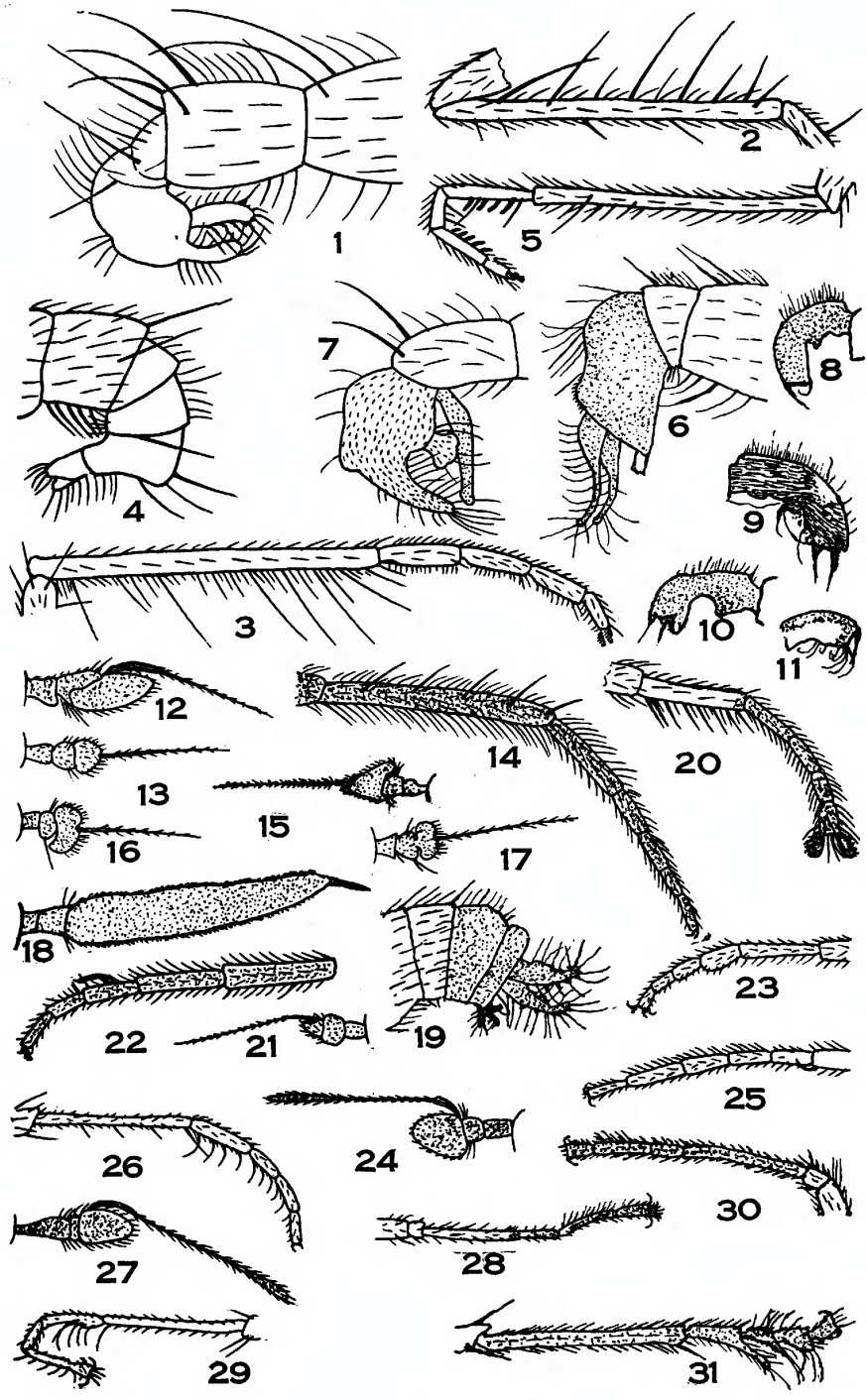
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Fig. 1. *Condylostylus melampus* Loew. Hypopygium of male.
" 2. " *melampus* Loew. Anterior tibia of male.
" 3. " *melampus* Loew. Anterior tarsus of male.
" 4. " *coloradensis*, new species. Hypopygium of male.
" 5. " *tarsatus*, new species. Anterior tarsi of male.
" 6. " *varitibia*, new species. Hypopygium of male.
" 7. *Sciapus dubiosus*, new species. Hypopygium of male.
" 8. *Mesorhaga flavipes*, new species. Hypopygial lamellæ.
" 9. " *varipes* Van Duzee. Hypopygial lamellæ of male.
" 10. " *cærulea* Van Duzee. Hypopygial lamella of male.
" 11. " *caudata* Van Duzee. Hypopygial lamella of male.
" 12. *Asyndetus flavipalpus*, new species. Antenna of male.
" 13. *Chrysotus longihirtus*, new species. Antenna of male.
" 14. " *longihirtus*, new species. Posterior tarsus of male.
" 15. " *barbipes*, new species. Antenna of male.
" 16. " *bellulus*, new species. Antenna of male.
" 17. " *badius*, new species. Antenna of male.
" 18. *Raphium lugubre* Loew. Antenna of male.
" 19. " *lugubre* Loew. Hypopygium of male.
" 20. *Sympycnus spinitarsus*, new species. Anterior tarsus of male.
" 21. " *minuticornis*, new species. Antenna of male.
" 22. " *minuticornis*, new species. Hind tarsus of male.
" 23. " *brevicauda*, new species. Anterior tarsus of male.
" 24. " *insolitus*, new species. Antenna of male.
" 25. " *insolitus*, new species. Anterior tarsus of male.
" 26. " *insolitus*, new species. Middle tarsus of male.
" 27. " *monticola*, new species. Antenna of male.
" 28. " *monticola*, new species. Anterior tarsus of male.
" 29. " *monticola*, new species. Middle tarsus of male.
" 30. " *furcatus* Van Duzee. Anterior tarsus of male.
" 31. " *furcatus* Van Duzee. Middle tarsus of male.

on outer side of basal half," while in *melampus* the fore tibiæ (Fig. 2) have four long bristles and three a little shorter on the posterior surface, the last of the longer bristles at apical third, the last of the shorter ones at apical sixth, and also a pair near the tip. Dr. Becker describes his species as having distinct, rather pretty, fine cilia on outer edge of upper surface of middle tibiæ, while *melampus* has an indistinct row of slightly clavate hairs on upper edge of posterior surface; but they could scarcely be called cilia and surely not "fine cilia," and might easily be overlooked. The middle tarsi in *melampus* are one and one-half times as long as their tibia and one and one-fourth times in Becker's species. The fore tarsi in *melampus* (Fig. 3) have, on the first segment, three long bristles on apical third, and four a little shorter on apical two-thirds, also from nine to eleven smaller bristles of unequal length placed among the long ones and extending the whole length of the segment. Becker states that the first joint of *barbatulus* has "six or seven long bristles."

It is possible that *barbatulus* Becker will prove to be the same as *melampus* Loew. Both were described from Mexico and Parent reports *barbatulus* from Peru.

Condylostylus coloradensis, new species

Length, 4 mm.

MALE.—Face and front shining green with blue reflections; face with a little white pollen, especially around the edges, wide above, narrower below, its suture at the middle; palpi black with long white hair and black bristles; antennæ wholly black, second segment with the longest bristle below and one and one-third times as long as the antenna; orbital cilia and beard white, moderately long and abundant.

Thorax and abdomen shining green with blue reflections, abdominal sutures rather narrowly black; venter with moderately long white hair; scutellum with two pairs of marginal bristles of nearly equal length; hypopygium (Fig. 4) black, rather small, with short black lamellæ.

Coxæ, tibiæ, and tarsi wholly black, the femora shining green with rather long white hair below; front tibiæ without bristles, except two or three below, which are about as long as the diameter of the tibia; middle femora with two slender bristles near tip on lower posterior surface, their tibiæ on basal half with three small bristles above and two below, longest bristle above near middle and twice as long as diameter of tibia; posterior tibiæ with three small bristles on upper anterior surface of basal half; front tarsi plain, one and one-fourth times as long as tibia, first segment about one-sixth shorter than the tibia; middle tarsi one and one-third times as long as tibia, first segment with six or seven minute spines below, which are a little shorter than diameter of joint; posterior tarsi just equal to their tibia in length and becoming a little more slender toward the tip; segments of front tarsi as 57–13–10–10–7; of middle pair as 79–20–19–11–8; and of posterior ones as 61–24–16–11–8. Calypters and their cilia black; knobs of halteres yellow, petiole dark brown.

Wings grayish with the usual two cross-bands united along the costa back to third vein; the brown on the costa begins just beyond the tip of first vein, extending to tip of third vein, but leaving a narrow gray space along the costa from tip of second vein to tip of third; third vein considerably bent backward at tip; first cross-band of moderate width, extending over the cross-vein to just beyond fifth vein; second cross-band extending over the fork of fourth vein to just back of fourth vein, which ends abruptly a little beyond its fork, from cross-vein to fork as 43, from fork to wing-margin as 22; last section of fifth vein as 17, cross-vein as 28; fork of fourth vein at nearly a right angle to fourth, its upper bend rather broadly rounded; hairs on the costa rather long from the middle of first vein to tip of second, but nearly recumbent, the costa could scarcely be called ciliated.

TYPE.—Described from one male, taken at Wray, Colorado, between August 17–19, 1919, by F. E. Lutz, at an elevation of about 3700 feet.

This specimen seems to come nearest to *C. perspicuus* Becker, but *perspicuus* has three bristles on posterior surface of front tibiæ, and this specimen has none; *perspicuus* was described from Brazil and has the apical half of front tibiæ reddish brown, their front tarsi only a little longer than the tibia, middle tarsi one and one-half times as long as tibiæ, and hind tarsi longer than their tibia. *C. coloradensis* is also something like *C. præstans* Aldrich, from Mexico, but that species has short bristles on second antennal segment; first segment of front tarsi as long as their tibia, last joint a little widened and silvery on one side; its length is 6 mm.

Condylostylus tarsatus, new species

Length, 4 mm.

Male.—Face bare, wide, narrowed a little below, blue-green or blue, rounded below, its suture a little below the middle, when seen from above it is wholly silvery-white pollinose; front shining steel-blue; palpi black, proboscis yellowish; antennæ black, third segment small, rounded, arista dorsal, about as long as width of head; longest bristles on second segment twice as long as the antenna; lower orbital cilia and beard white, rather long.

Thorax bright shining green, front and posterior part and the scutellum usually bright steel-blue, the latter with two pairs of bristles. Abdomen green with blue or coppery reflections; basal half or more of all segments opaque black; venter with rather long white hair; hypopygium black, rather small, with small black lamellæ bearing stiff black hairs on apical part.

Front coxæ and all femora shining green, middle and hind coxæ black; front coxæ with white hair; all femora with long white hair below, which is longest near base; front tibiæ pale yellow, above with two rows of bristles of moderate length on basal two-thirds, and two small bristles below at first and second thirds, apical third without bristles, except the small spurs at tip; middle tibiæ yellow, sometimes with apical half brown, below with one small bristle at middle and a large one at second third, on upper anterior surface with a large bristle at first and second thirds and several bristle-like hairs on basal third; posterior tibiæ and all tarsi wholly black, the posterior tibiæ with one small bristle before basal third on upper anterior edge;

anterior tarsi (Fig. 5) almost twice as long as their tibia, first segment not quite one and one-third times as long as the remaining four taken together, second and fourth segments each with four blunt spines below, the second and third each with two bristles; the apical third of first joint with several long bristles; middle and hind tarsi plain; middle tarsi fully one and one-half times as long as their tibiæ; segments of anterior tarsi as 67–20–9–12–6; of middle pair as 74–21–15–7–5; of posterior pair as 55–22–14–8–6. Calypters and their cilia black; knobs of halteres pale yellow.

Wings nearly hyaline with a brown cloud extending from tip of first vein to tip of second vein and from costa to third vein; costa not ciliated; fork of fourth vein broadly rounded, the fourth ending abruptly a little beyond the fork; last section of fourth vein from cross-vein to fork as 41, from fork to end of fourth as 7, from fork to wing margin as 25; cross-vein as 35, last section of fifth as 20; wing of about equal width.

FEMALE.—Like the male in color and wing characters, except that all femora are yellow. Anterior tarsi plain, but the first joint has a few bristles below, which are about as long as diameter of segment; segments of anterior tarsi as 58–19–10–7–7; hind tibiæ are wholly black as in the male; longest bristle on second antennal segment about as long as the antenna.

TYPES.—Described from six males and four females, taken by E. L. Bell, between March 10 to 23, 1931, at Claremont, Jamaica: holotype, male, March 10; allotype, female, March 15.

The form of the anterior tarsi in this species is something like that of the group which includes *C. clavipes* Aldrich, *C. pedestris* Becker, *C. barbitarsis* Parent, *C. rex* Parent, *C. camptopus* Parent, *C. coxalis* Aldrich, *C. brevimanus* Enderlein, and *C. nigrimanus* Van Duzee. It differs from all of these in having the second segment of the anterior tarsi longer than the fourth, and the wings clear, except the small cloud along the costa from the tip of the first vein to the tip of the second.

Condylostylus varitibia, new species

Length about 6 mm.

MALE.—Face and front shining blue-green; face with the suture near the middle; palpi and proboscis black. Antennæ black; longest bristle on second segment only a little longer than diameter of the segment; third segment about as long as wide; arista subapical, as long as height of head; beard whitish, not very long or abundant.

Thorax shining metallic green; scutellum with two pairs of long bristles; abdomen largely dull black, most of first segment, lateral corners of second, apical third of second, and wide posterior margins of third and fourth segments bright metallic green; sides at base of abdomen with abundant white hair; venter and sides of apical segment with a few pale hairs; hypopygium (Fig. 6) and its outer lamellæ black, the latter rather long and narrow.

All coxæ, femora, and the hind tibiæ black; front tibiæ yellow, the middle pair blackish on lower and posterior surfaces, yellowish in front and above, but infuscated at the base; anterior coxæ with moderately long but not abundant white hair, and two black bristles at tip; all femora with white hair below, which is about as long as width of femora; all tarsi black; anterior tibiæ with three bristles below; middle

tibiæ with a row of about 65 clavate hairs above, which begin near basal fourth and reach the tip, one moderately small bristle above, near basal eighth, the clavate hairs continued on the first two tarsal segments, the first bearing about 52 and the second ten, those on the second segment are but little enlarged at tip; anterior tarsi plain; hind tarsi with last four segments a very little widened; anterior tibiæ as 105, middle as 158; segments of anterior tarsi as 97–30–20–13–7; of middle pair as 137–33–25–13–6; of hind tarsi as 97–24–20–18–11. Calypters, their cilia and the halteres yellow.

Wings tinged with brownish gray and with the usual two cross-bands rather dark and united along the costa as far back as third vein, and also along fourth vein, the first band reaching hind margin of wing at tip of fifth vein; the second band fills out the tip of the wing to the tip of the fork of fourth vein and reaches beyond base of fork of fourth vein and back of the vein beyond the fork; on the costa the brown begins just before the tip of first vein; fork of fourth vein makes about a 45° angle with basal part of fourth vein; fourth vein from fork to cross-vein as 74, from fork to wing margin as 22; last section of fifth vein nearly straight and reaching the wing margin, its length as 23, cross-vein as 43.

FEMALE.—Wing-bands about as in the male, but the rest of the wing is not tinged with brown; venation the same; arista distinctly dorsal; anterior coxæ and all femora and tibiæ yellow; posterior knees and upper edge of hind femora at tip, for nearly one-fourth their length, are black; all tarsi black; halteres yellow.

TYPES.—Holotype, male, and allotype, female, taken in the Panama Canal Zone, the allotype at Barro Colorado Island, in November, 1930, by F. H. Schwartz.

In M. l'Abbé O. Parent's table of species of the genus *Condylostylus* (Ann. Soc. Scient. Bruxelles, XLIX) this would run to group IV, couplet 25, on page 10, where it would form a third paragraph, reading "Tibiæ 1 wholly, and tibiæ 2 on anterior surface, yellow." The other species running to couplet 25 are *C. barbatulus* Becker, with the legs wholly black, and *C. triseriatus* Aldrich and *C. leonardi* Van Duzee, both of which have the front and middle tibiæ wholly yellow.

Condylostylus clunalis Coquillett

Sciapus clunalis COQUILLETT, 1902, Journ. N. Y. Ent. Soc., X, p. 141.

Psilopus nitidicauda VAN DUZEE, 1929, Proc. U. S. Nat. Mus., LXXIV, Art. 10, p. 12, Pl. 1, figs. 21, 22, and 29.

An examination of a paratype of *C. nitidicauda* in my collection shows the inner pair of lamellæ present. The outer pair of lamellæ are nearly glabrous, the inner ones fringed with hair on the edge. In figure 21, in the Proceedings U. S. Nat. Mus., the inner lamellæ are hidden by the outer pair which are a little the larger. In the female the longest bristle on second antennal segment is scarcely as long as the antenna, in the male it is one and one-third times as long as the antenna.

Condylostylus clavatus Van Duzee

Psilopus clavatus Van Duzee, 1929, Proc. U. S. Nat. Mus., LXXIV, Art. 10, p. 15, Pl. I, figs. 24, 25 and 26.

One male and three females that seem to be this species were taken by F. H. Schwartz, in the Panama Canal Zone, during November, 1930: one pair at Corozal and two females on Barro Colorado Island.

The male agrees with the description, except that the lengths of the tarsal segments seem to differ somewhat, the third segment of hind tarsi being distinctly longer than the fourth; the hind femora in this specimen is conspicuously black on upper surface at tip; the wing venation seems to be about the same, having the upper bend of the fork of fourth vein nearly a sharp right angle with a short stump-vein at the bend; the venation of the females is also about the same. In the male the wing cross-bands are faint as in the type, but in the females the bands are very dark brown; the tips of the hind femora are not darkened, or scarcely darkened, in any of the three females.

Possibly these may be a distinct form from *clavatus*, but I do not think so; only a comparison with the type could determine this, and the type is in the Museum of Comparative Zoölogy at Cambridge.

Sciapus dubiosus, new species

Length, 4.5–5 mm.

Male.—Face bare, green, wide above, quite narrow below, suture a little below the middle, wholly opaque with silvery-white pollen when seen from above; front shining blue-green; palpi black with black bristles; proboscis yellow; antennæ wholly black, bristles on second segment no longer, or but little longer, than width of segment; third segment small, about as long as wide, somewhat conical in outline, arista inserted at middle of upper edge, about as long as the eye-height; lateral orbital cilia and the abundant beard white.

Thorax and abdomen green, posterior part of thorax and the scutellum more blue, scutellum with one pair of bristles; abdominal incisures scarcely at all blackened; venter yellowish brown with a few delicate, rather long, white hairs; hypopygium (Fig. 7) black, of moderate size, its lamellæ long and slender, black, fringed on one side with long hairs.

Anterior coxæ wholly yellow, with many rather long, yellow hairs; middle and hind coxæ black with yellow tips; all femora, tibiæ, and basitarsi pale yellow, extreme tips of the basitarsi sharply black, remaining segments of tarsi more or less blackened; all femora with a few quite short, yellow hairs below; middle femora with many bristle-like hairs below on apical third; all tibiæ without noticeable bristles; middle tibiæ and basitarsi with rows of nearly erect hairs, those on the tibiæ not as long, or scarcely as long, as the thickness of the tibia, those on basitarsi fully as long as diameter of segment, these are continued on the following segments, but are not conspicuous; length of anterior tibiæ as 78, of middle pair as 110, and of posterior as

144; segments of front tarsi as 83–27–21–13–8; of middle pair as 97–43–33–20–10; of posterior pair as 85–35–23–14–8. Calypters with white cilia; halteres yellow.

Wings nearly hyaline; costa with long, curved, stout cilia extending from base of wing to beyond tip of second vein; third vein considerably bent backward from before the tip of second vein; fork of fourth vein at nearly a right angle to fourth, its upper bend rounded but quite sharp, beyond this bend the fork is nearly straight, fourth vein beyond the fork rather slender, but nearly reaching the wing margin; last section of fourth vein from the cross-vein to the fork as 40, from fork to wing margin as 23; last section of fifth vein as 15, cross-vein as 43; wing very slightly flattened at tip.

TYPE.—Described from one male, taken by C. H. Curran, July 11, 1931, at Cold Spring Harbor, Long Island, New York.

The male described above resembles *S. cilicostatus* Van Duzee, from Jamaica, but *dubiosus* has the hind basitarsi pale yellow, with only the extreme tip black; third segment of front tarsi not at all enlarged, fifth not widened, or scarcely widened; middle tibiæ and basitarsi with erect hairs, and cilia of costa a little curved for their whole length and beginning at base of wing, not at the middle of first vein, as in *S. cilicostatus*, which also has these cilia suddenly bent close to their tips, and also has the hind basitarsi almost wholly black, the tip of the third segment of front tarsi enlarged and fifth segment widened.

Mesorhaga flavipes, new species

Length, 2.2 mm.

MALE.—Face wide above, about half as wide at oral margin, green, but wholly opaque with white pollen which is tinged with yellow when seen from above; front shining green, blue in the middle, with long yellow hairs on the sides near the vertex, the pollen of the face extending a little above the antennæ; all bristles of the head yellow, but the ocellar bristles appear blackish in certain lights; palpi yellow, nearly round, with white hair on upper surface and a bristle at tip; proboscis yellow; lateral and inferior orbital cilia white, not very long, even below; occiput green with a little white pollen.

Thorax and abdomen shining green with blue or bronze reflections; bristles of thorax and scutellum yellow, but sometimes appearing a little blackish in certain lights; hairs of abdomen decidedly yellow, but when seen from above those on the dorsum appear mostly black, those on the first segment and on lower edge of sides long and white or very pale yellow; hypopygium black, large, extending somewhat under the abdomen, the outer lamellæ (Fig. 8) black with a whitish spine at outer apical corner and a delicate, whitish, curved hair at inner apical corner.

Anterior coxæ green with rather narrow yellow tips, anterior surface with white pollen and long white hair, the hairs at tip more bristle-like; middle and hind coxæ black with white hair and bristles; all femora yellow, but middle ones with a small blackish streak below at base; posterior pair blackish below and on lower part of sides at base, sometimes almost to their middle; all femora with long white hairs below, those on posterior pair shortest and farther apart, those on middle pair long-